file ACT/015/025 #3

0029

CO-OP MINING COMPANY

P.O. Box 1245
Huntington, Utah 84528

(801) 748-5238
Coal Sales (801) 748-5777

October 3, 1986

Mr. John Whitehead
Utah Division of Oil, Gas & Mining
355 West North Temple
#3 Triad Center Suite 350
Salt Lake City, Utah 84180-1203

RE: 9/9/86 Letter - Hiawatha
Seam Revision

Dear Mr. Whitehead:

Co-Op Mining Company requests a partial approval of the Hiawatha Seam Revision, Bear Canyon Mine, ACT/015/025, July 14th 1986 Revision.

The partial approval would be to consider the surface facilities as a minor modification and allow construction of said facilities to be implemented fall 1986, prior to inclimate weather. Those portions of the July 14th submittal which were deficient and relevent to the surface facilities is attached herein.

As per our meeting of 9/30/86, Co-Op Mining has initiated a drilling program as outlined by Mr. Smith. A tentative timetable for hole #10 to be completed by 10/24/86 and hole #11 by 11/7/86; the data collected will be submitted by the end of November 1986.

It is important to note that Co-Op is fully aware of the liabilities associated with construction of the surface facilities prior to approval of the Hiawatha seam.

Co-Op appreciates your cooperation in this endeavor and will await your decision.

Sincerely,

Melvin A. Coonrod
Permitting & Compliance

MC/njc

3.6.7.2 Major Modification to Mine the Hiawatha Seam (Modification of Existing Bond Amount

Co-Op Mining will enter the Hiawatha Seam through a portion of old works which were partially covered during road construction to the upper portal. The area in question is presently disturbed and will not constitute an additional area to revegetate, alter natural drainage reconstruction or significantly alter the post-mining contour map in any way.

A new coal receiving bin identical to the existing structure will be constructed as well as approximately 200 additional feet of conveyor; these two structures along with 2 new portals and a small support pad will necessitate the following costs associated with final reclamation:

Hiawatha Seam Revision Costs:

A.	Seal & Backfill Portals AMR Cost - 3,500/seal including backfill X 2 seals =	$ 7,000.00
B.	Structures and Conveyor (Secondary) Labor - 3 men X $184.40/day X 2 days	$ 1,106.40
	Equipment (hauling) 1 truck + operator X 16 hrs X $90.65/hr	$ 1,450.40
	1 loader + operator X 16 hrs X $140.70 (950B - $2\frac{1}{2}$ cu. yd. bucket)	$ 2,251.20
	Crane - 2 hrs. @ $121.85/hr.	$ 243.70
	Subtotal	$ 5,051.70
C.	Hiawatha Receiving Bin Labor - 2 men @ $184.40/day X 2 days	$ 737.60
	1 20 T Crane - 4 hrs X $121.85	487.40
	1 Truck + Operator - 4 hrs X $90.65	362.60
	Subtotal	$ 1,587.60

Costs in present bond will change to 1986 costs. The revised bonding costs are: (Should be added to 1986 Dollars)		$ 204,703.00	
Reclamation Costs for Hiawatha Seam revision (see below)		$ 13.639.00	
		$ 218,342.00	
	10%	$ 21,834.00	
		$ 240,176.00	(1986 dollars)

Escalate @ 1.62%

1987 - $ 244,067
1988 - 248,021
1989 - 252,039
1990 - 256,122

Presently have $ 237,545 posted in (1990 dollars) (ILOC)
Will add $ 18,577 more upon approval of surface facilities.

*Pages 3-117 and 3-118 (to be deleted)

approximations to determine the required characteristics and sized of the required channels or conduit as the case may be to convey the projected discharges.

Appendix 7-F contains the computer programs and printouts used in sizing the ditches and culverts. Refer to Plate 7-1 for locations of the various structures and Plate 7-5 for areas used in calculations.

The following pages contain summaries of the ditch and culvert sizes.

7.2.5.2.0 ADDITIONAL CONTROL FOR HIAWATHA SEAM MINING

As shown on Plate 2-2, the outslope of the proposed Hiawatha Seam portal pad will encroach upon the ephemeral channel between D-1D and d-2D on Plate 7-8. It is proposed to install a 15" felxible culvert as shown in Figure 7-F1 and 7-F2 to convey the drainage from the upper areas of the channel beneath the pad. The outlet protection for the flexible culvert shown on Plate 2-2 will adhere to the specifications as indicated on pages 83-B3, B4 and page 64A Bear Canyon MRP. The rip-rap and filter blanket specification will be adhered to as specified.

The pad and channel will be constructed prior to placing the flexible culvert in the excavated channel. The culvert will be backfilled and all heavy equipment will be precluded from the area to avoid an accidental crushing of the buried culvert. The flexible culvert is designed to withstand being buried but will not hold up under

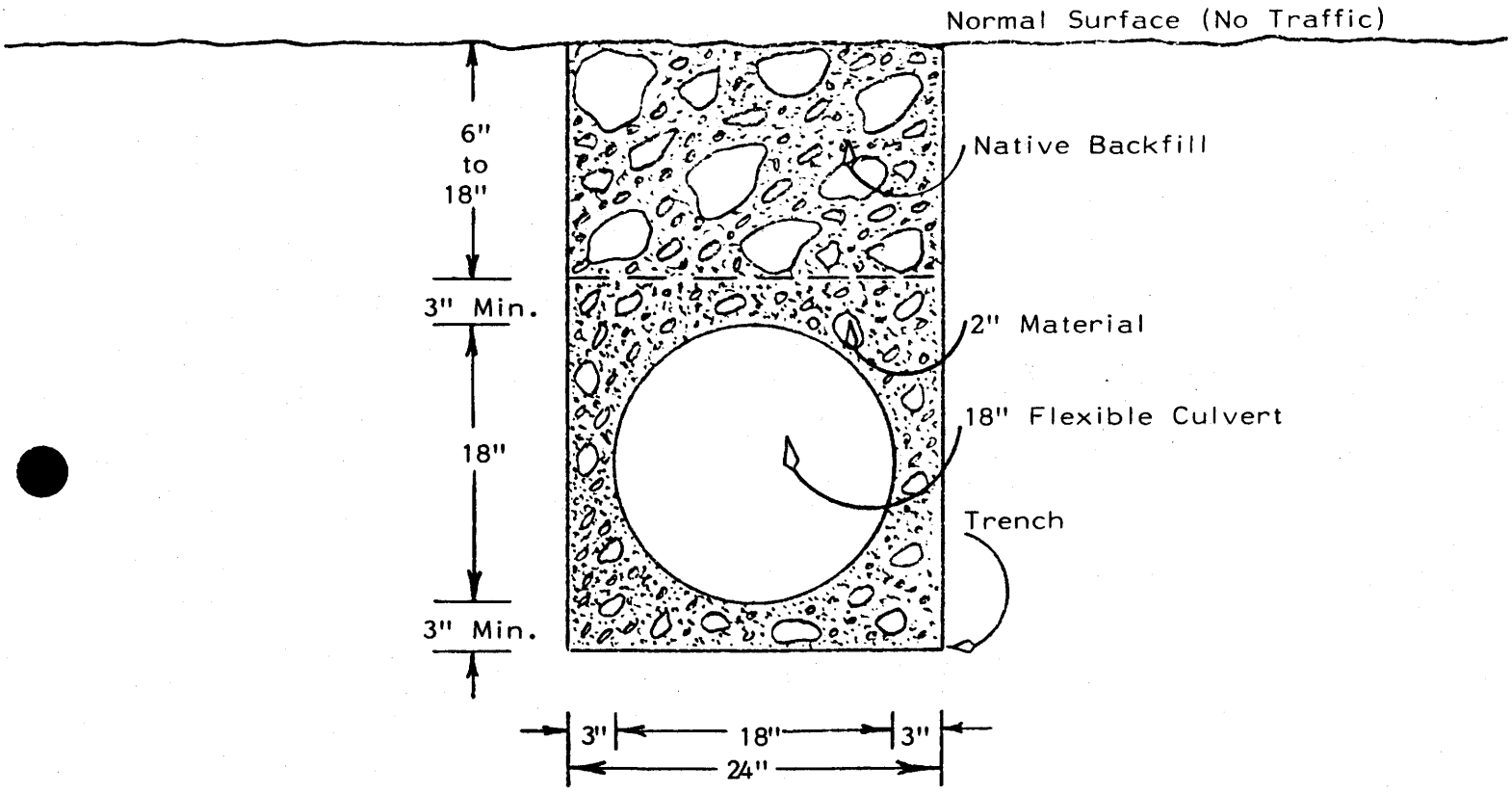
heavy equipment traffic. This channel is included in drainage area AD-1 (Plate 7-5). The maximum water this channel is calculated to flow is shown on Table 7.2-8 as 1.5 cfs (Ditch D-2D). Calculations for this ditch are shown in Appendix 7-F under Runoff Ditch Sizing. Based on this flow, the culvert is sized as shown on Table 7.2-7 (Revised Summary of Culvert Sizes). The new culvert is designated C-4D, and matches the criteria for culvert C-1D. The headwater depth above the top of the culvert inlet is proposed to be 1' more than adequate to carry the expected flow. Energy dissipators will be placed as indicated in the following sections (7.2.5.2.1 and 7.2.5.2.2)

The outslope of the pad will be protected by the installation of 6" M.D. rock along the area where drainage will occur. The only drainage that will reach the toe of the pad is that from the upper pad to the lower; the majority of the drainage above will be conveyed through the culvert. The 6" rock will be more than adequate, since the approved plan calls for natural 6" rip-rap in the post-mining channel that will carry not only the disturbed drainage AD-1, but the undisturbed drainage from AU-3 as well.

The ditch in this area has been measured, and typical section is shown on Plate 7-8 as cross-section D-D. The ditch profile is also shown on this plate as Profile "F". Plate 7-8A is a typical section of the proposed channel restoration in the area of the portal pad and culvert, after their removal and upon final reclamation.

Figure 7-F1

CROSS-SECTION OF
BURIED FLEXIBLE CULVERT



Scale 1" = 1'

Figure 7F-2

DOWNSPOUT STRUCTURE